T.G. Section III-A-2 Resource Management System
Reserve Field Office
Irrigated Cropland Guide Sheet
Resource Data

MLRA 36
Soils: All irrigated soils in WEG 3 thru 7.
WEQ values: C-80 or less, I-86 or less, and L-1000 or less

If WEQ values listed above are exceeded, erosion losses for each rotation will be computed individually to ensure that total average wind erosion loss is within acceptable levels during February to May, which is the critical blow season.

MANAGEMENT REQUIREMENTS addressing all 6 Resource Concerns

The Conservation Cropping Sequence needed for Erosion Control and to Protect the Resource Base may include crops grown in any order and sequence that meet the CCS specifications to maintain tilth for each soil group. Crops are rotated to control disease, to utilize fertilizers and pesticides, to prevent or control salt buildup and give an economic return.

The existing Irrigation System will be maintained as irrigation is essential for growing crops to control wind erosion. If needed, Land Leveling and Irrigation Water Conveyance practices become essential.

Irrigation Water Management is essential when needed: Examples are; if water is inadequate or expensive, is needed to control deep percolation or excess runoff, where crop needs are not being met, where water quality is a problem and/or where pattern or overall efficiencies are low.

Crop Residue Use for erosion protection requires leaving the residues from the previous crop on the surface until tillage operations for the next crop begins. After this, no residue is required if the land is planted, rough plowed or listed when irrigated. Avoid leaving the land in a smooth, dry, pulverized condition during the critical blow period. Maintain a 2 inch stubble on growing crops as alfalfa and small grain.

CRU for maintaining tilth requires returning over 2500# of crop residue /ac./yr. to the soil, or every other year or every third year based on soil type. Mulching with manure or other residues as gin trash to meet the soil needs as outlined in the CCS specifications is an acceptable alternative. Grasses And Legumes In Rotation and Cover And Green Manure Crops are other practices suited to maintain tilth.

If land is left fallow or idle manage the rotation where the idle land is preceded by a high residue crop, which has adequate residue for erosion protection. These residues will be maintained on the soil surface to leave the following "Small Grain Equivalents", (SGE) for the following soil types and Wind Erodibility Groups, (WEG). Sandy loams, clays, and highly calcareous loams in WEG-3, 4 and 4L, 2000# SGE/ac.; and loams in WEG-5, 6, and 7, 1500# SGE/ac.

The following crops normally produce the following SGE under normal management if left standing. Alfalfa, small grain, corn, milo, and sudan produce over 3000# SGE/ac.

If inadequate residue is present and where adequate moisture is present on soils that will produce stable clods; plowing or listing is an adequate temporary alternative but should not exceed one year in the rotation.

If land is to be left idle for extended periods, irrigation may be needed to re-establish the minimum residue, or the land may be planted to a perennial cover.

Where sodium or salinity is a problem Toxic Salt Reduction is essential.

Where Water Disposal is a problem a Surface or Subsurface Drainage System can become essential.

Off-Site Effects such as flooding, sediment, dust, erosion, and pesticides and nutrients needs addressed if a problem, as well as Animal Wastes and Agricultural Chemicals, which can contaminate air and water others use.

San Francisco SWCD J. Alex Patterson Date 6/10-88

District Conservationist Bill Schwebke Date 6/13/88

Area Conservationist Steve Bulsterbaum, Acting Date 6/16/88

State Office Ray Margo Jr. Date 7/7/88

T.G. Section III-A-2 Resource Management System
Reserve Field Office
Non-Irrigated Cropland Guide Sheet
Resource Data

MLRA 36 and 39
Soils: All non-irrigated soils in WEG 3 thru 7.
WEQ values: C-120 or less, I-86 or less, and L-1000 or less

If WEQ values listed above are exceeded or if slopes are over 3 percent, erosion losses for each rotation will be computed individually to ensure that total erosion is within acceptable levels. The following alternatives are acceptable regardless of the tillage method used provided the crop residues and/or growing crops are managed as indicated in the Management Requirements section to provide wind erosion protection during March and April, which is the critical blow season. The main hazard is low rainfall.

MANAGEMENT REQUIREMENTS addressing all 6 Resource Concerns

The Conservation Cropping Sequence needed for Erosion control and to protect the Resource base is usually continuous small grain, but may include any high residue crop as sudan, corn, clover, or milo.

Crop Residue Use for Erosion and Resource protection requires leaving adequate residues from the previous crop on the surface or to maintain a 2 inch stubble on spring growing crops as small grain during March and April. These residues will be maintained on the soil surface to leave the following "Small Grain Equivalents", (SGe) for the following soil types and Wind Erodibility Groups, (WEG) if left fallow. Sandy loams in WEG-3, 1500# SGe/ac.; and loams and clay loams in WEG-6 and 7, 1000# SGe/ac. It takes 275# standing and 550# flat small grain residue to equal 1000# SGe and 425# standing and 950# flat to equal 1500# SGe. If inadequate residue is present and where adequate moisture is present on soils that will produce stable clods; Emergency Tillage by plowing or listing is an adequate temporary erosion control practice. To protect the resource base, at least 1500#/ac. of residue needs to be returned to the land yearly. If grazed, the manure returned or Mulching should be adequate to meet this need. If baled for hay, at least 1500#/ac. stubble plus volunteer annuals should be left to turn under. If cut for grain, the straw should be more than adequate, if plowed under. If land is to be left idle for extended periods, the field should be planted to a perennial cover. Clover or vetch used as a Legume in the Rotation helps where fertility is low. Chiseling and Subsoiling can control compacted zones.

Stripcropping and/or Field Windbreaks to control wind Erosion is applicable if unsheltered distance is to long or if residues are inadequate to protect the soil.

Practices which are applicable to Water Management help control runoff to prevent Erosion and aid in water intake and retention for crop production. They are Conservation Tillage, Chiseling and Subsoiling, Contour Furrowing and Terracing. Diversions, Erosion Control Structures, Grassed Waterways and Structures for Water Control are practices which may address Water Management and/or Water Disposal problems.

Off-Site Effects, and Animal Wastes and Agriculture Chemicals should be addressed if a problem.

This is very marginal Cropland and consideration should be given to change land use to Pastureland or Rangeland to provide a greater level of protection to the resource.

San Francisco SWCD Alex Patterson Date 6/10-88

District Conservationist Bill Schuebke Date 6/15/88

Area Conservationist Stan Bulsterbaum, Acting Date 6/16/88

State Office Lary Vinargo Jr. Date 7/7/88